

Intelligent Lighting Family Product Guide

Part Number	Description	Package(s) Available	Page No.
CCFL/EEFL Intelligent Inverter® Controller ICs			
LCD MONITOR (LCDM) APPLICATIONS			
OZ9919	Selectable LCDM Controller	16 SOP, Lead-free	7
OZ9933	LCDM Full-Bridge Controller	16 PDIP, SOP, Lead-free	8
OZ9937	Universal LCD Panel Controller	16 SOP, Lead-free	9
OZ9938	Multi-Lamp Controller	16 PDIP, SOIC, Lead-free	10
LCD TV APPLICATIONS			
OZ9928*	LCD TV Dual Controller	30 SSOP, Lead-free	11
OZ9966*	Large-Size LCD TV Controller	24 SOP, SSOP, Lead-free	12
OZ9972/ OZ9972A*	High Power LCD TV Controller	24 SOP, SSOP, Lead-free/ 28 SSOP, Lead-free	13
OZ9976*	Offline LCD TV Controller	16 SOP, Lead-free	14
LED Backlight Controller ICs			
NOTEBOOK / NETBOOK APPLICATIONS			
OZ9901	LCD Bias Supply Controller	24 QFN, Lead-free	15
OZ9955A	Eight String LED Controller	24 QFN, Lead-free	16
OZ9955B	Eight String SMBus™ LED Controller	24 QFN, Lead-free	17
OZ9956B	Six String LED Controller	20 QFN, Lead-free	18
OZ9956C	White LED Backlight Controller	20 QFN, Lead-free	19
OZ9960	High Power LED Controller	12 DFN, 16 SSOP, Lead-free	20
OZ9979	Six String w/Phase-Shift Dimming, Internal MOSFET	20 QFN, Lead-free	21
OZ9989	Three String LED Controller	12 DFN, Lead-free	22
OZ9993	Low Cost White LED Controller	SOT23-6L, Lead-free	23

* NOTE: The OZ9928, OZ9966, OZ9972/72A, OZ9976, and OZ9977/77A/77B are inverter controllers specially designated for use in televisions or applications with multiple lamps, are warranted and licensed for use in these or any other appropriate applications, and are sold with a license to all relevant O2Micro patents. Sale of all other O2Micro inverter controllers are subject to the following restrictions: (i) the product is not warranted, indemnified, or licensed for use in televisions or applications with multiple lamps; (ii) sale of the product and license to O2Micro inverter controller patents are expressly conditioned upon not using this product in a television or applications with multiple lamps; (iii) by using the product, you agree to notify customers of the limited scope of the license and sale; and (iv) use of the product in a television or applications with multiple lamps is expressly prohibited, is a material breach of such sale, and violates any express or implied license to any O2Micro patent. All sales are subject to O2Micro's conditions and terms of sale and use.

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Part Number	Description	Package(s) Available	Page No.
LED Backlight Controller ICs (cont.)			
MONITOR APPLICATIONS			
OZ9902	Dual Channel High Power LED Driver	24 SOP, SSOP, Lead-free	24
OZ9906	Six String LED Controller	28 E-TSSOP, SOP, Lead-free	25
OZ9908	Eight String High Power LED Controller	48 LQFP, 40 QFN, Lead-free	26
OZ9961	Six String LED Controller	20 E-TSSOP, SSOP, Lead-free	27
OZ9967	Six String High Power LED Controller	28 SOP, SSOP, TSSOP, Lead-free	28
OZ9997	LED Backlight Controller	24 E-TSSOP, QFN, SOP, Lead-free	29
OZ9998/ OZ9998A	Eight String High Power LED Controller	24 E-TSSOP, QFN, SOP, Lead-free	30
OZ9998B	Four String High Power LED Controller	16 E-TSSOP, PDIP, QFN, SOP, Lead-free	31
TV APPLICATIONS			
OZ9902	Dual Channel High Power LED Driver	24 SOP, SSOP, Lead-free	24
OZ9902B	Single Channel High Power LED Driver	16 QFN, SOP, Lead-free	32
OZ9904	Four String LED Controller	28 SSOP, Lead-free	33
OZ9904A	Eight String LED Controller	40 QFN, Lead-free	34
OZ9906	Six String LED Controller	28 E-TSSOP, SOP, Lead-free	25
OZ9908	Eight String High Power LED Controller	48 LQFP, 40 QFN, Lead-free	26
OZ9908A	Six String High Power LED Controller	28 SOP, TSSOP, Lead-free	35
OZ9908B	Six String High Power LED Controller	32 LQFP, SOP, Lead-free	36
OZ9967	Six String High Power LED Controller	28 SOP, SSOP, TSSOP, Lead-free	28

OZ9966

FEATURES

- Full-bridge or dual-forward topology
- Integrated high side N-MOSFET driver
- High drive capability and System synchronization
- Dedicated pins for Analog and LPWM dimming
- Selectable PWM dimming polarity
- Constant operating frequency
- Built-in intelligence to manage lamp ignition and normal operation
- Open-lamp, over-voltage, over-current, and under-voltage lockout protection
- User-defined striking and shutdown delay timers
- Soft start function

GENERAL DESCRIPTION

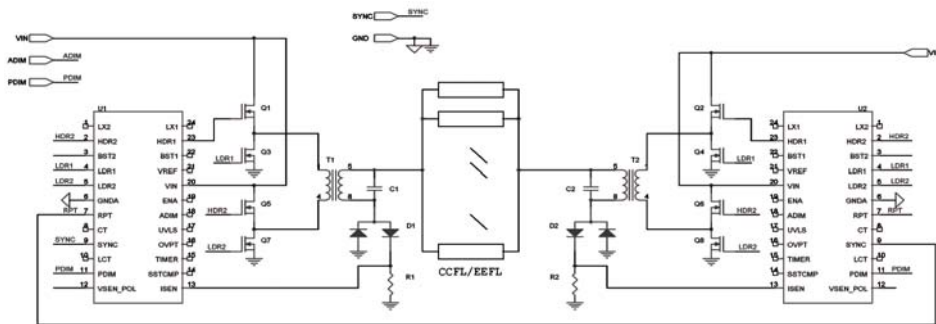
The OZ9966 is a high performance controller designed for large-size LCD TV applications requiring multiple lamps. It achieves a high efficiency power conversion with minimal switching loss using a full-bridge N-Channel MOSFET topology. The OZ9966 is ideal for single-side drive or differential drive applications.

OZ9966 allows selection of the Pulse Width Modulation (PWM) dimming polarity, and provides two dedicated pins for analog and PWM dimming control.

APPLICATIONS

- LCD TV

APPLICATION DIAGRAM



U.S. Patent #'s 6,259,615; 6,396,722; 6,570,344; 6,781,325; 6,804,129; 6,897,698; 6,936,975; 7,075,245; 7,126,289; 7,151,394; 7,190,123; 7,248,240; 7,345,431; 7,394,209; 7,417,382; 7,425,949; 7,515,445; 7,515,446; 7,550,928; 7,554,273; 7,777,425; and more patents pending.

OZ9972/72A

FEATURES

- **OZ9972:** System synchronization for dimming and operation frequency
- Full-bridge topology
- Integrated high side N-MOSFET driver
- High drive capability and soft start function
- Constant operating frequency
- Built-in intelligence to manage lamp ignition and normal operation of CCFLs
- Open-lamp, over-voltage, over-current, and under-voltage lockout protection
- User-defined striking and shutdown delay timers
- Soft start function

GENERAL DESCRIPTION

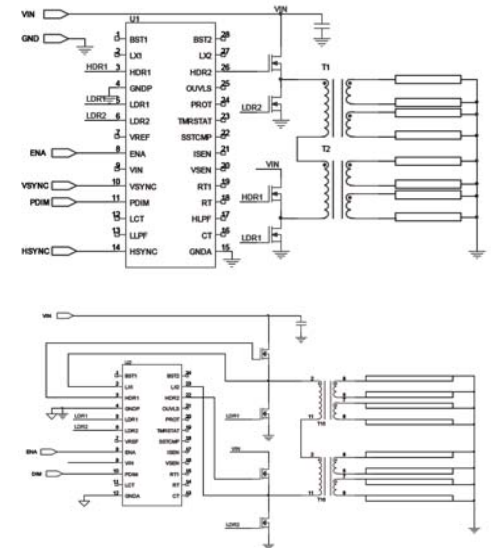
OZ9972/72A are high performance, Pulse Width Modulation (PWM) controllers designed for large-size LCD TV applications requiring multiple lamps. They achieve high efficiency power conversion with minimal switching loss in a PWM, full-bridge, N-Channel MOSFET topology.

OZ9972/72A provide high drive capability, support a wide input range, and provide a constant, user-defined operating frequency.

APPLICATIONS

- LCD TV

APPLICATION DIAGRAMS



U.S. Patent #'s 6,259,615; 6,396,722; 6,570,344; 6,781,325; 6,804,129; 6,897,698; 6,936,975; 7,075,245; 7,126,289; 7,151,394; 7,190,123; 7,248,240; 7,345,431; 7,394,209; 7,417,382; 7,425,949; 7,515,445; 7,515,446; 7,550,928; 7,554,273; and more patents pending.